

# FEATURE

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## BANGLADESH NEEDS A NEW AGRICULTURAL STRATEGY

by Noazesh Ahmed

After 10 years of the so-called Green Revolution, it is clear that the expectations held by many Asian countries were exaggerated, and have in fact turned out to be illusory.

Growth of food production in the region has barely kept pace with that of population, and in some countries per capita cereal production actually fell over the past decade. By 1985 the region could have a food grain deficit of from 15 to 30 million tons, with unemployment ranging from 10 to 20 percent.

There continues to be a substantial gap between the yields obtained at the experimental stations and those in the farmers' fields. The Asian Development Bank concludes in a recent report that the region as a whole appears to be no nearer to solving its food problems now than it was a decade ago.

It is obvious then that the agricultural strategy of the rice-growing countries of Asia is in serious trouble, and so is the applied technology. Not that the technological theory is wrong -- the genetic creation of high-yielding varieties of rice and wheat, or hybrid corn and cabbage, these are master works. The problem with the high-yielding varieties of rice is that they produce their fantastic yields only under optimum growth conditions.

The "miracle" seeds require skilled management and high inputs of fertilizer, water, and insecticides. The major problems appear to be a lack of well adapted varieties for average farm conditions, and an inability to organize farmers and rural workers so that the potential for higher levels of production and rural employment can be realized.

Bangladesh is by no means exempt from these problems. Per capita rice production actually fell during the past decade, in spite of, or perhaps because of the new technology. The costly new agricultural technology has increased yields in some advantageous areas of the country, but the majority of the rural population has not been given much of a share in the benefits. The resultant migration of rural workers is swelling the ranks of the urban unemployed.

A new agricultural strategy is needed. It should be based on appropriate technologies that make more use of available local resources, require unsophisticated support systems, are demonstrably superior to traditional methods, and can have an immediate impact.

Improved seed will play a key role, but these should be developed in Bangladesh to meet the local conditions. A massive crop improvement programme would require a major reorganization of the country's research set-up, a large number of trained manpower, and huge capital outlay. At present not even 0.1 percent of the country's gross national product is spent on agricultural research.

There is also an urgent need to integrate agricultural research and education, which at present are under two different ministries, through a system of agricultural universities. Such a system has been well tested in other countries, including India, and by emphasizing agricultural training, research and extension, would help create an atmosphere conducive to the development of more appropriate agricultural technologies.

Irrigation is as important as fertilizer as a source of added output. However, water use efficiency and management practices are very poor in Bangladesh. Improvement in these areas could result in increased production from presently available resources.

The emphasis in irrigation must be on inexpensive, cost-efficient systems that are flexible enough to meet the changing requirements of new crop varieties. Similarly with fertilizer the emphasis should be on efficient utilization, as the record shows that indiscriminate use of larger quantities of fertilizer does not guarantee increased yields.

There are also numerous socio-economic factors, such as the lack of adequate credit for small farmers and the urgent need for land reform, that contribute to the problems facing Bangladesh and other monsoon countries of South and Southeast Asia in their efforts to improve their rice culture. However, the major limitation comes from a purely technical shortfall: the lack of well-adapted high-yielding varieties for all parts of the region.

Bangladesh and her neighbours cannot afford this constraint on their agro-economies. There needs to be less reliance on "imported" technology, and more emphasis on crop improvement and adaptive work at the farm level. The rate of growth of agricultural output must be accelerated in a way that allows the small and marginal farmers to contribute to -- and benefit from -- that growth.

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